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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,911	03/18/2004	Kazuya Iwamoto	43888-305	5410

7590 01/24/2007  
MCDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
WASHINGTON, DC 20005-3096

EXAMINER
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MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/802,911

Applicant(s)

IWAMOTO, KAZUYA

Examiner

Julian Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2006-07-21, 2004-03-18.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

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## DETAILED ACTION

### *Remarks*

Claims 1-3 are pending.

### *Information Disclosure Statement*

The Information Disclosure Statement (IDS) filed on March 18, 2004 has been considered by the examiner.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as obvious over Higuchi et al. (JP 2000-195482).

For purposes of discussion, the examiner relies on the machine translation of the above-cited document as obtained from the Japanese Patent Office website,

<[http://www.ipdl.ncipi.go.jp/homepg\\_e.ipdl](http://www.ipdl.ncipi.go.jp/homepg_e.ipdl)>

For claim 1, Higuchi et al. teaches an integrated battery comprising a flexible substrate [3], which results in the condition that "a flexible solid-state polymer battery bends and a

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problem is in use.” See par. [0014] The battery further comprises a cell group comprising four unit cells arranged on the flexible substrate; the patentees specifically disclose “two or more” cells arranged into a plurality of squares, with sixteen shown in Figure 1. See pars. [0018-0020] Each cell comprises a positive electrode [2a], a negative electrode [2c] and a solid electrolyte [2b] interposed therebetween. See par. [0027].

The cell group has matter [5] which is deemed readable on the claimed strip-shaped plain portions being arranged along diagonal lines, as matter [5] is specifically disclosed as being arranged around each cell such that the periphery section of each cell is filled up.” See par. [0024]. Figure 1 (planar view) reveals that the peripheral spaces between the cells, when filled with [5], would resultantly be strip-shaped not unlike applicant’s invention.

For claim 2, as to the width of the strip-shaped plain portions being twice or more than the thickness of the unit cell, it would not require undue experimentation for the skilled artisan to employ a width of the claimed magnitude relative to the thickness of the cell, as the patentees specifically disclose that the presence of the structure [5] imparts the desired flexibility property (i.e. “ups-and downs”) of the cell, thus, absent of unexpected results it is asserted that the amount of matter [5] which fills the intercell spacings is an optimizable parameter for the result-effective variable of cell flexibility. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) See par. [0024].

For claim 3, the cell group is arranged on the flexible substrate such that each side of the flexible substrate and the corresponding side of said cell group are parallel, as shown in Figure 3.

For claims 1 and 3, as to the cell group and/or the flexible substrate having the general shape of a rectangle, the shape of the cell group is deemed an obvious matter of design choice,

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absent of a showing of unexpected results. *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975). For example, given that Higuchi et al. teaches a configuration with two unit cells, the resultant structure of two substantially square cells, when placed side-by-side, would be substantially rectangular in shape.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Pat. 4,279,974 to Nishio teaches a reinforcing partitioning wall for a solid polymer electrolyte battery.

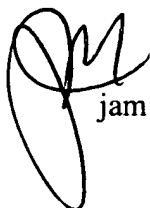
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

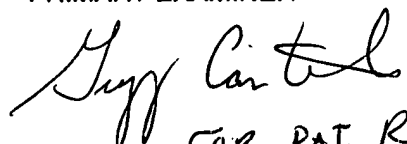
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam

GREGG CANTELMO  
PRIMARY EXAMINER



FOR PAT RYAN  
1/22/07